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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|------------------------|------------------|
| 10/659,376 | 09/11/2003 | Kenta Kubota | 023971-0310 | 4854 |
| 22428 | 7590 | 01/04/2006 | EXAMINER TO, TUAN C | |
| FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007 | | | ART UNIT 3663 | PAPER NUMBER |

DATE MAILED: 01/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/659,376

Applicant(s)

KUBOTA, KENTA

Examiner

Tuan C. To

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 17-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,8-11 and 13-16 is/are rejected.
- 7) ☒ Claim(s) 2-7 and 12 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09/11/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Applicant's election of Group I (claims 1-16) in the reply filed on 11/07/2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1, 8-11, 13, 14 are rejected under 35 U.S.C. 102 (b) as being anticipated by Labuhn et al. (US 5454442A).

With respect to claim 1, Labuhn et al. direct to an adaptive cruise control system for a vehicle comprising: an adaptive cruise computer (154) which is associated with the radar sensor (150) for obtaining the road width indicative information, and that said computer calculate V_c as the source vehicle speed required for maintaining the desired following distance D_d (Labuhn et al., figure 1; column 3, lines 57-67; column 4, lines 1 and 2; column 5, lines 6-16).

With regard to claim 8, as represented in Labuhn et al., desired following distance is set as the target inter-vehicle distance according to the range that represents the road width indicative information as claimed (Labuhn et al., column 3, lines 57-62).

With regard to claim 9, Labuhn et al. teach that the desired following distance D_d is the function of the source vehicle speed V_s (Labuhn et al, column 6, lines 17-25). The following desired distance D_d , as illustrated by Labuhn et al, is adjusted to that of the target speed V_T , thus said distance is clearly being correct to a desired distance at a target speed. It should be noted that the cruise computer (154) performs the correction of desired distance on the basic of the range, which includes a lane width (Labuhn et al, figure 1).

With regard to claim 10, the cruise computer is clearly arranged to vary a correction quantity of the following desired distance D_d on the basic of the source vehicle speed V_s (Labuhn et al, column 6, lines 17-25).

With regard to claim 11, Labuhn et al. further disclose that the cruise computer is arranged to increase the following desired distance D_d to the maximum as the source vehicle speed V_s increases to V_T (Labuhn et al., column 5, lines 23-30).

With regard to claim 13, Labuhn et al. teach that the computer calculates the target vehicle speed based on the following desired distance D_d and said computer execute the following control using the target vehicle speed. It is important to note that the source vehicle speed V_s is adjusted to a target vehicle speed (Labuhn et al., column 5, line 11; column 6, lines 17-25).

With regard to claim 14, as set forth in this office action, the radar sensor (150) (Labuhn et al., figure 1) detects a range that includes traffic lane width (Labuhn et al., column 3, lines 57-62).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Labuhn et al. (US 5454442A) and in view of Takenaga et al. (US 20030105578A1).

With respect to claim 15, Labuhn et al. disclose a typical preceding-vehicle following control system as now claimed in claim 1 except for car navigation system connected to the controller, the car navigation system has stored the road width indicative information wherein.

The secondary reference to Takenaga et al. disclose a vehicle system/method for controlling the traveling operation of a host vehicle, including: road information acquisition unit (3) having a navigation system (30) connected to the vehicle control unit

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(6), and that said navigation system has stored road width of road map (Takenaga et al., paragraph 52).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Labuhn et al. to include the teachings as taught by Takenaga et al. to gain advantage therefore (i.e., the vehicle safety is maintained when a host vehicle travels on a specific road that may has a sharp curve or on a road of several other vehicles that are in the proximity of the host vehicle).

With regard to claim 16, Takenaga et al. further teach that the image processing unit (1) includes a CCD for capturing the traffic environment of a host vehicle including the road shape (Takenaga et al., page 3, paragraph 50, line 9).

Allowable Subject Matter

After reviewing the limitations of claims 2-7, and 12 with special attention, the examiner has recognized the prior art fail to discloses the limitations as now claimed. For that reason, those claims are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusions

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan C To whose telephone number is (571) 272-6985. The examiner can normally be reached on from 8:00AM to 5:00PM.

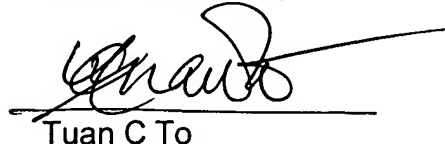
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878.

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The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner,



Tuan C To

December 27, 2005